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EPA Why Watersheds?

INTRODUCTION

Increasingly, State and Tribal water resource professionals are turning to watershed management as a means for achieving greater results from their programs. Why? Because managing water resource programs on a watershed basis makes good sense -- environmentally, financially, and socially.

Better Environmental Results

Because watersheds are defined by natural hydrology, they represent the most logical basis for managing water resources. The resource becomes the focal point, and managers are able to gain a more complete understanding of overall conditions in an area and the stressors which affect those conditions.

Traditionally, water quality improvements have focused on specific sources of pollution, such as sewage discharges, or specific water resources, such as a river segment or wetland. While this approach may be successful in addressing specific problems, it often fails to address the more subtle and chronic problems that contribute to a watershed's decline. For example, pollution from a sewage treatment plant might be reduced significantly after a new technology is installed, and yet the local river may still suffer if other factors in the watershed, such as habitat destruction or polluted runoff, go unaddressed. Watershed management can offer a stronger foundation for uncovering the many stressors that affect a watershed. The result is management better equipped to determine what actions are needed to protect or restore the resource.

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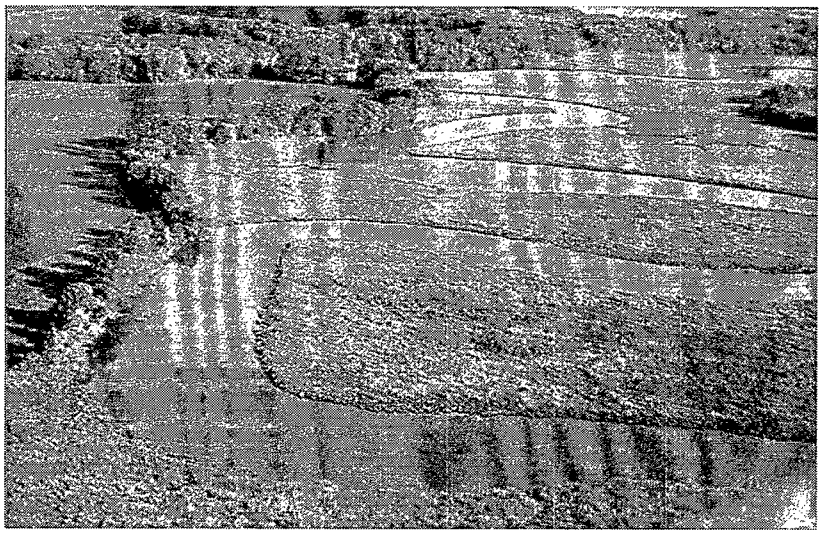
Saving Time and Money

Besides the environmental pay-off, watershed approaches can have the added benefit of saving time and money. Whether the task is monitoring, modelling, issuing permits, or reporting, a watershed framework offers many opportunities to simplify and streamline the workload. For example, synchronizing monitoring schedules so that all monitoring within a given area (i.e., a watershed) occurs within the same time frame can eliminate duplicative trips and greatly reduce travel costs. North Carolina was able to monitor nearly 40 percent more waters with the same level of effort after monitoring was conducted on a more coordinated watershed basis.



Improving Environmental Management on Idaho Dairies

The job of assuring environmental safeguards on 1,400 dairy farms has become much more efficient and effective in the State of Idaho as a result of a new working relationship between EPA, the State Departments of Environmental Quality (IDEQ) and Agriculture (ISDA), and the Idaho Dairy Association. Historically, EPA has only managed to inspect about 5 percent of dairies with its limited enforcement resources. However, under the new arrangement, ISDA inspections of milk quality will be expanded to include waste management practices. In addition, inspectors will work to educate farmers about water quality and how to best achieve protection. Because all dairies are visited annually, the opportunity for identifying and addressing waste management problems will be significantly greater. This arrangement maintains EPA enforcement authority to intervene, as necessary, in cases where public health or environmental quality are at risk.

Efficiency is also increased once all agencies with natural resource responsibilities begin to work together to improve conditions in a watershed. In its truest sense, watershed protection engages all partners within a watershed, including Federal, State, Tribal and local agencies. By coordinating their efforts, these agencies can complement and reinforce each others' activities, avoid duplication, and leverage resources to achieve greater results.

Data collection is one activity that is particularly ripe for greater cooperation and coordination. For example, a State can reduce its own monitoring costs by factoring in the monitoring activities of the U.S. Environmental Protection Agency (EPA), the U.S. Geological Survey, the National Oceanic and Atmospheric Administration, and the National Resource Conservation Service. In addition, permittees and other stakeholders that generate ambient monitoring data can form basin monitoring consortiums to pool resources and provide the State with greater consistency in collecting and reporting data.

Greater Public Support

Watershed protection can also lead to greater awareness and support from the public. Once individuals become aware of and interested in their watershed, they often become more involved in decision-making as well as hands-on protection and restoration efforts. Through such involvement, watershed approaches build a sense of community, help reduce conflicts, increase commitment to the actions necessary to meet environmental goals, and ultimately, improve the likelihood of success for environmental programs.

EPA's Role

As the primary Federal agency with responsibility for protecting and restoring the nation's waters, EPA has opportunities to advance watershed protection. In recent years, considerable effort has been invested in streamlining program administrative requirements that hinder watershed approaches and in developing useful watershed tools and services. This publication highlights EPA's actions for the benefit of water resource managers interested in adopting watershed approaches more broadly.

STREAMLINING

Reducing Reporting Requirements

EPA and the States are transitioning to a five-year, watershed-based monitoring and reporting cycle to replace the two-year Clean Water Act (CWA) Section 305(b) cycle now in effect. Under this scheme, States identify their waterbodies and assess water quality conditions in all watersheds over a five-year period. Each year, core information would be electronically reported for those watersheds assessed according to the State's schedule; a report characterizing conditions in the entire State would be produced every five years and aggregated into a national report.

EPA anticipates that this change will give States greater freedom to concentrate on monitoring and assessing watershed conditions and will reduce the time spent on reporting, resulting in a more comprehensive assessment of national water quality conditions.

The first five-year cycle will begin in 1996, and the resulting National 305(b) report will be released in 2002. In the interim, States will provide annual water quality updates to EPA via the modernized STORET data base.

Simplifying Wetlands Permitting

States can use watershed planning to help simplify the CWA Section 404 wetlands regulatory program in several ways. First, Advanced Identifications or similar watershed planning tools can identify areas within the watershed as either suitable or unsuitable for development, improving the predicitability of permitting decisions. Second, watershed plans can lead to greater use of general permitting. General permits substantially decrease the time necessary for individual permit review. The CWA allows use of general permits to authorize activities that have only minor individual or cummulative environmental impacts. Impacts can be evaluated best when a complete understanding of all resources and conditions within the watershed is available.

Third, watershed plans can facilitate collective wetlands permitting procedures among government agencies. Such collective permitting allows local, State, regional, and federal permitting to be processed in tandem to avoid duplicative requirements and unnecessary delays.

PROVIDING FINANCIAL ASSISTANCE

EPA is administering CWA grant programs in ways that encourage watershed protection.

Nonpoint Source Grants

EPA has changed the nonpoint source grants program (CWA Section 319) to provide more flexibility to States to focus on high priorities within watersheds. Under new guidance currently being developed by EPA in close cooperation with the States, each State would identify waters and their watersheds that are impaired by nonpoint source pollution and identify important unimpaired waters that are threatened or otherwise at risk because of nonpoint sources. Each State would establish a process to progressively address these identified waters by developing more detailed watershed assessments and watershed implementation plans and then begin implementing the plans. States can use Section 319 funds to support these activities.

State Revolving Fund Loans

EPA is working with the States to determine how the State Revolving Loan Fund (SRF) (CWA Section 604(b)(3)) can be used to better support watershed protection activities. Traditionally the SRF has been used to finance municipal sewage treatment plant projects. However, in recent years, States have been using the SRF to fund a variety of other water quality projects including nonpoint source, estuary, habitat restoration, and stormwater projects.

EPA and the States are currently negotiating a framework to improve planning and priority

setting and clarify eligibilities under the SRF program. The framework, if adopted, would make it possible for States to expand their flexibility even further in making SRF funding decisions while ensuring that critical State water quality objectives continue to be addressed.

Watershed Planning Grants

States may use funds from their CWA Section 604(b) planning grants to develop a state watershed planning framework and individual watershed plans and to conduct assessments of environmental conditions that are essential to effective watershed planning.

National Estuary Program Grants

EPA, under CWA Section 320, provides substantial financial and technical resources through the National Estuary Program (NEP) to help protect and restore valuable estuarine watersheds. Once selected, these areas receive Federal funding for three to five years to support a consensus-based management process that includes representatives of major stakeholders. The process includes technical and management characterizations of the estuary and its watershed; identification of pollutant sources, impacts, and trends; and then the establishment of priorities for actions to correct those problems identified. NEPs also receive support to demonstrate implementation of these actions. The NEP is often regarded as a model for how to implement a watershed management approach, and areas developing or implementing watershed plans have an advantage when competing for designation in the program.

PROVIDING GREATER FLEXIBILITY

Increased Grant Flexibility

In FY 1996, if authorized by Congress, EPA will begin to offer Performance Partnership Grants (PPGs) to eligible States and Tribes. A PPG is a multi-program grant made to a State or Tribal agency from funds otherwise available for categorical grant programs. PPGs are intended to provide States and Tribes with greater flexibility to address their highest environmental priorities, improve environmental performance, achieve administrative savings, and strengthen partnerships between EPA and the States or Tribes.

A State or Tribe can combine funds from two or more of sixteen categorical, environmental grant programs into one or more PPGs. PPGs can fund any activity that is within the cumulative eligibilities of the 16 categorical grant programs.

Through PPGs, States can combine funding from eligible grants to target high priority problems and address multi-media problems within the States' watersheds. States that combine categorical grants into PPGs must continue to address the core

program requirements which those grants are meant to support. A final approved PPG will be the result of negotiations between the State and its EPA Regional Office.

Allowances for NPDES Permit Backlogs

EPA is allowing States that are reorienting programs on a watershed basis to have short-term backlogs on NPDES permit review -- *without penalty*. This flexibility gives States time to synchronize the reissuance of major and minor permits within a watershed. By managing NPDES permits on a watershed basis, all the permits for discharges to the waterbody can be coordinated and the most efficient and equitable allocation of pollution control responsibility can be made.

Longer Cycles for NPDES Permits

EPA suppports legislative changes to the CWA that would allow States who are implementing watershed management plans to issue NPDES permits for up to 10 years in place of the current 5-year cycle. This longer cycle would reduce the resource burden of reissuing permits known to be adequately protective of human health and the environment.

Longer Cycles for Issuing Water Quality Standards

Similarly, EPA supports legislative changes to the CWA that would allow States to review and issue water quality standards over a five-year timeframe in place of the current three-year cycle. This cycle would allow States to synchronize standard review and, if appropriate, revision with overall watershed plans that include five-year cycles for monitoring and reporting. The longer cycle would free the States to spend more time and resources on higher priority activities.

Facilitating Changes in Agency Waste and Pesticide Programs

EPA is providing greater management flexibility to States in administering various media programs if States have Comprehensive State Ground Water Protection Programs (CSGWPPs). CSGWPPs, which reflect the same principles as a watershed approach for surface waters, call for

Federal Grants Eligible for Inclusion in Performance Partnership Grants

Clean Air Act
Air Pollution Control (§105)

Clean Water Act
Water Pollution Control (§106)
Nonpoint Source Management (§319)
Water Quality Cooperative Agreements (§104(b)(3))
Wetlands Program Development (§104(b)(3))

Safe Drinking Water Act
Public Water System Supervision (§1443(a) and §1451(a)(3))
Underground Water Source Protection (§1443(b))

Solid Waste Disposal Act
Hazardous Waste Management (§3011(a))
Underground Storage Tank (§2007(f)(2))

Toxic Substances Control Act
Radon Assessment and Mitigation (§306)
Lead Based Paint Activities (§404(g))
Toxics Compliance and Monitoring (§28)

Pollution Prevention Act
Pollution Prevention Incentives for States (§6605)

Federal Insecticide and Fungicide Regulatory Act
Pesticide Enforcement (§23(a)(1))
Pesticide Applicator Certification and Training (§23(a)(2))

Indian Environmental General Assistance Program Act
General Assistance Grants to Indian Tribes

States to define ground water uses, values, and vulnerabilities. Rather than developing separate plans under various environmental statutes, EPA is allowing the CSGWPPs to be used for priority setting and management purposes in other media efforts. For example, CSGWPPs can be used as a basis for selecting appropriate ground water clean-up remedies under Superfund and for setting priorities for site assessments under Superfund and RCRA. The Underground Storage Tank Program is using CSGWPPs in making decisions about inspections and enforcement priorities and actions.

Over 100 large cities and smaller towns have already taken advantage of this flexibility [in the Surface Water Treatment Rule] to avoid the expenses of filtration, while implementing comprehensive watershed protection programs.

Avoiding Filtration of Drinking Water Supplies

The Surface Water Treatment Rule requires public water systems to filter their water supplies to remove pathogenic microbiological contaminants. However, if a water supply meets certain source water quality criteria and the community has a watershed program in place that sufficiently protects against these contaminants, EPA allows exemptions from the filtration requirements. Public water suppliers that qualify for these exemptions can avoid the expense of constructing and operating filtration plants. Over 100 large cities and smaller towns have already taken advantage of this flexibility to avoid the expenses of filtration, while implementing comprehensive watershed protection programs.

Less Monitoring Under Safe Drinking Water Act

EPA has modified drinking water monitoring and reporting requirements to allow States to grant waivers from those requirements if an assessment of risks in the watershed demonstrates that contamination by certain pollutants is unlikely. Communities that receive waivers can reduce their monitoring and reporting costs by 50-90 percent. State agencies also realize savings because their oversight costs are reduced.

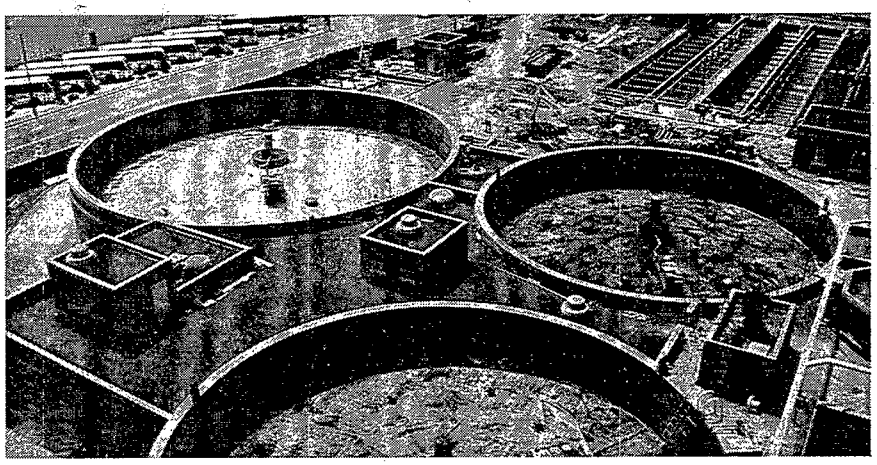
Facilitating Use of Wetlands Mitigation Banks

EPA, in conjunction with other Federal agencies, has published guidance on how to establish and operate mitigation banks for wetlands. When established within the context of a watershed management plan, these banks can help communities balance the need for development with the need for effective wetlands protection. By establishing an overall watershed plan, communities can expect greater success with compensatory mitigation projects and a faster, simpler permitting process.

West Eugene, Oregon Mitigation Bank

As part of their comprehensive wetlands management plan, the City of Eugene, Oregon, will utilize mitigation banking as the primary means of compensating for impacts to wetlands resulting from necessary development activities. Under this approach, the most suitable sites are identified, acquired, and wetlands restored in advance of the wetlands impacts. To satisfy mitigation requirements, developers who operate in compliance with the wetland management plan can simply purchase credits from the mitigation bank, thus eliminating the uncertainty associated with case by case permitting and saving valuable time and resources. Because the bank is planned and developed as a whole, restored wetlands can be incorporated into a comprehensive plan that will enhance existing wildlife habitat, more effectively manage storm water runoff, and provide additional open space and recreational opportunities.

Facilitating Use of Effluent Trading



EPA has endorsed effluent trading and is developing a handbook to assist those communities that would like to implement trading programs more aggressively. By allowing dischargers to take advantage of various economies of scale and treatment efficiencies, effluent trading can lead to a more cost-effective achievement of water quality goals. Estimated cost savings for the regulated community range from the hundreds of millions to the billions of dollars. EPA recognizes that watershed management plans are an essential step in developing and implementing effluent trading programs.

Effluent trading requires a complete understanding of all pollution sources affecting a watershed, and a watershed management plan is the most logical means for generating this type of information. EPA issued its trading policy in January 1996 and expects to release a draft handbook later in the year.

EPA Watershed Reports, Guidances, and Training Opportunities

Reports and Guidances:[1]

* *Ecological Restoration: A Tool to Manage Stream Quality*[2]
* *Effluent Trading in Watersheds Policy Statement (EPA800-K-96-001)*
* *Innovations in Coastal Protection (EPA842-F-94-002)*
* *Measuring Progress of Estuary Programs (EPA842-B-94-009)*
* *Moving the NPDES Program to a Watershed Approach (EPA833-R-96-001)*
* *National Estuary Program Demonstration Project Fact Sheets (EPA842-F-95-001[A-F])*
* *NPDES Watershed Strategy (EPA833-R-96-002)*
* *Regional Guidance for Development of State-by-State Assessments and Action Plans (EPA833-R-96-003)*
* *Report on State-by-State Assessments, Regional Action Plans, and Regional Internal Strategies (EPA833-R-96-004)*
* *Saving Bays and Estuaries: A Primer for Establishing and Managing Estuary Projects (EPA503-8-89-001)*
* *TMDL Case Studies Numbers 1 - 13*
* *Volunteer Estuary Monitoring: A Methods Manual (EPA842-B-92-004)*
* *Watershed Approach Framework - 1996*[2]
* *Watershed Tools Directory*[2]

Training Opportunities:

* *Watershed Academy*
* *The Statewide Watershed Management Course*

For infomation on these training opportuinities, call (202) 260-1718.

[1]Copies can be obtained from NCEPI, P.O. Box 42419, Cincinnati, OH 45242-2419, FAX: (513) 489-8695.
[2]Final draft; release expected in Spring 1996.

FOR MORE INFORMATION

305(b) Report
Assessment and Watershed Protection Division
U.S. EPA (4503F)
401 M Street, SW
Washington, DC 20460
(202) 260-7040
(202) 260-1977 (FAX)

Wetlands Permitting and Mitigation Banking
Wetlands Division
U.S. EPA (4502F)
401 M Street, SW
Washington, DC 20460
(202) 260-7791
(202) 260-2356 (FAX)

General Wetlands Issues
Wetlands Information Hotline
(800) 832-7828

Nonpoint Source Grants
Assessment and Watershed Protection Division
U.S. EPA (4503F)
401 M Street, SW
Washington, DC 20460
(202) 260-7040
(202) 260-7024 (FAX)

State Revolving Fund and 604(b) Grants
Municipal Support Division
U.S. EPA (4204)
401 M Street, SW
Washington, DC 20460
(202) 260-7359
(202) 260-1827 (FAX)

National Estuary Program
Oceans and Coastal Protection Division
U.S. EPA (4504F)
401 M Street, SW
Washington, DC 20460
(202) 260-1952
(202) 260-9960 (FAX)

Performance Partnership Grants
Office of Water
U.S. EPA (4101)
401 M Street, SW
Washington, DC 20460
(202) 260-5700
(202) 260-5711 (FAX)

NPDES Permits
Permits Division
U.S. EPA (4203)
401 M Street, SW
Washington, DC 20460
(202) 260-9545
(202) 260-1460 (FAX)

Water Quality Standards
Standards and Applied Science Division
U.S. EPA (4305)
401 M Street, SW
Washington, DC 20460
(202) 260-7301
(202) 260-9830 (FAX)

CSGWPP and Source Water Protection
Ground Water Protection Division
U.S. EPA (4602)
401 M Street, SW
Washington, DC 20460
(202) 260-7077
(202) 260-0732 (FAX)

Safe Drinking Water Act Monitoring
Drinking Water Implementation Divsion
U.S. EPA (4604)
401 M Street, SW
Washington, DC 20460
(202) 260-3874
(202) 260-3464 (FAX)

Effluent Trading
Assessment and Watershed Protection Division
U.S. EPA (4503F)
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(202) 260-7040
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